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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,928	03/16/2004	Horacio D. Espinosa	NU23104	2330

7590 03/27/2006

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EXAMINER

LARKIN, DANIEL SEAN

ART UNIT PAPER NUMBER

2856

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/801,928	ESPINOSA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Daniel S. Larkin	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-58 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input type="checkbox"/> Other: ____                                     |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-18, 56, and 57, drawn to a material dispensing cantilever, classified in class 216, subclass 2.
  - II. Claims 19-22, drawn to a material dispensing microtip, classified in class 422, subclass 100.
  - III. Claims 23-36, drawn to a method of making a dispensing device, classified in class 216, subclass 2.
  - IV. Claims 37-39, drawn to a method of making a microchannel, classified in class 216, subclass 2.
  - V. Claims 40-45 and 58, drawn to method of making a microtip, classified in class 216, subclass 8.
  - VI. Claims 46-52, drawn to a method of forming a nanopattern, classified in class 427, subclass 180.
  - VII. Claim 53, drawn to a method of scanning probe microscopy, classified in class 73, subclass 105.
  - VIII. Claims 54 and 55, drawn to a method of applying an electrical stimulus and measuring the electrical response of a surface, classified in class 324, subclass 600.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I (claims 2-7, 11, 12, and 14-18) and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of the limitations of Group II are not found in Group I. The subcombination has separate utility such as material dispensing tip, which does not require the use of a cantilever, such as using an etching process to create the cantilever and microchannel.

3. Inventions I (i.e. claims 1 (ABbr) and 8-10, 13 (ABsp)) and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of the limitations of Group II are not found in ABbr. The subcombination has separate utility such as material dispensing tip, which does not require the use of a cantilever, such as using an etching process to create the cantilever and microchannel.

4. Inventions I and (III-V) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the material dispensing apparatus can be made by another materially different process, such as etching the cantilever to produce a microchannel. Additionally, the claims of Groups IV and V do not recite a cantilever.

5. Inventions I and (VI-VIII) are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another materially different process, such as one that utilizes the microchannel in the cantilever to dispense fluid to an analyzing devices, such as a glucose blood meter.

6. Inventions II and (III and IV) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the material dispensing apparatus can be made by another materially different process, such as manufacturing the tip as a

pipette. The process claims recite use of a cantilever with a microchannel, which is not required by the apparatus limitations.

7. Inventions II and V are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the material dispensing apparatus can be made by another materially different process, such as manufacturing the tip as a pipette. The process claims recite forming tips on a substrate and a plurality of films which is not required of the apparatus limitations.

8. Inventions II and (VI-VIII) are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus can be used to sample fluids from a container functioning as a pipette structure.

9. Inventions III and IV are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are

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either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the process recited in the claims of Group IV are directed to a method of making a microchannel, which has a materially different design, mode of operation, function, or effect; and is therefore distinct from the claims of Group III (making a material dispensing device).

10. Inventions (III-IV) and V are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the process recited in the claims of Group V are directed to a method of making a microtip, which has a materially different design, mode of operation, function, or effect; and is therefore distinct from the claims of Group III (making a material dispensing device); and the claims of Group IV (making a microchannel).

11. Inventions (III-V) and VI are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the process recited in the claims of Group VI are directed to a method of forming a

nanopattern, which has a materially different design, mode of operation, function, or effect; and is therefore distinct from the claims of Group III (making a material dispensing device); the claims of Group IV (making a microchannel); and the claims of Group V (making a microtip).

12. Inventions (III-VI) and VII are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the process recited in the claims of Group VII are directed to a method of performing scanning probe microscopy of a surface, which has a materially different design, mode of operation, function, or effect; and is therefore distinct from the claims of Group III (making a material dispensing device); the claims of Group IV (making a microchannel); the claims of Group V (making a microtip); and the claims of Group VI (forming a nanopattern).

13. Inventions (III-VII) and VIII are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the



instant case, the process recited in the claims of Group VIII are directed to a method of applying an electrical stimulus and measuring the electrical response of a surface, which has a materially different design, mode of operation, function, or effect; and is therefore distinct from the claims of Group III (making a material dispensing device); the claims of Group IV (making a microchannel); the claims of Group V (making a microtip); the claims of Group VI (forming a nanopattern); and the claims of Group VII (scanning probe microscopy of a surface).

14. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

15. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

16. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).


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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin  
AU 2856  
17 March 2006

  
DANIEL S. LARKIN  
PRIMARY EXAMINER